

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1.-30. (CANCELLED)

31.(NEW) A method for mammographic image quality assurance comprising computerized processing of at least one digital mammographic image to identify landmark areas of the breast, characterized in that said method further comprises:

- computerized processing based on image processing measurements on identified landmark areas of the breast together with at least one associated criterion for assessing image positioning quality to produce an automated real-time positioning quality assessment result; and

- communicating said positioning quality assessment result on a user interface to enable a real-time decision by a technologist whether to retake said at least one mammographic image with improved positioning.

32.(NEW) The method according to claim 31, wherein said at least one criterion for assessing image positioning quality includes a set of threshold values.

33.(NEW) The method according to claim 31, further comprising the step of retaking said at least one mammographic image with improved positioning if the quality assessment result indicates that the image is inadequately positioned.

34.(NEW) The method according to claim 33, comprising multiple retakes of inadequately positioned images, continuously updating which image or set of images among said multiple retakes that is considered most adequate.

35.(NEW) The method according to claim 31, wherein said positioning quality assessment result further comprises visual indication of inadequately positioned areas of the breast on a graphical user interface.

36.(NEW) The method according to claim 31, wherein said positioning quality assessment result includes a number of user-configurable parameters, thus allowing a selectable level of detail in communicating the result.

37.(NEW) The method according to claim 31, wherein said positioning quality assessment result includes at least one of a visual part and a statistics part.

38.(NEW) The method according to claim 31, wherein at least one threshold for poor contra good image positioning in said processing is configurable via a user interface.

39.(NEW) The method according to claim 31, wherein said at least one mammographic examination comprises several projections.

40.(NEW) The method according to claim 31, wherein said at least one mammographic examination comprises at least one of a CC (Cranio-caudal) projection, an MLO (Medio-lateral oblique) projection, an LM (Latero-medial) projection and an ML (Medio-lateral) projection.

41.(NEW) The method according to claim 31, wherein said method is applied in mammographic screening.

42.(NEW) A system for mammographic image quality assurance, wherein said system comprises means for computerized processing of at least one digital mammographic image to identify landmark areas of the breast, characterized in that said system further comprises:

- means for computerized processing based on image processing measurements on identified landmark areas of the breast together with at least one associated criterion for

assessing image positioning quality to produce an automated real-time positioning quality assessment result; and

- means for communicating said positioning quality assessment result on a user interface to enable a real-time decision by a technologist whether to retake said at least one mammographic image with improved positioning.

43.(NEW) The system according to claim 42, wherein said at least one criterion for assessing image positioning quality includes a set of threshold values.

44.(NEW) The system according to claim 42, further comprising means for retaking said at least one mammographic image with improved positioning if the quality assessment result indicates that the image is inadequately positioned.

45.(NEW) The system according to claim 44, comprising means for multiple retakes of inadequately positioned images, and means for updating which image or set of images among said multiple retakes that is considered most adequate.

46.(NEW) The system according to claim 42, wherein said positioning quality assessment result includes visual indication of inadequately positioned parts of the breast on a graphical user interface.

47.(NEW) The system according to claim 42, further comprising means for user-configuration of at least one threshold for poor contra good image positioning in said processing.

48.(NEW) The system according to claim 42, wherein said system is part of a mammographic screening system.

49.(NEW) A digital mammography system comprising:

- means for generating at least one digital mammographic image of a patient;

- means for computerized processing of at least one digital mammographic image to identify landmark areas of the breast,

characterized in that said system further comprises:

- means for computerized processing based on image processing measurements on identified landmark areas of the breast together with at least one associated criterion for assessing image positioning quality to produce an automated real-time positioning quality assessment result;

- means for determining, based on the positioning quality assessment result, whether the image positioning quality of said at least one mammographic image is sufficient; and

- means for retaking, if the image positioning quality is insufficient, said at least one mammographic image with improved positioning.

50.(NEW) The digital mammography system according to claim 49, further comprising means for communicating said positioning quality assessment result to a technologist.

51.(NEW) The digital mammography system according to claim 49, wherein said at least one criterion for assessing image positioning quality includes a set of threshold values.

52.(NEW) A computer program product for performing, when running on a computer, mammographic image quality assessment, said computer program product comprising program means for computerized processing of at least one digital mammographic image to identify landmark areas of the breast, characterized in that said computer program product further comprises:

- program means for computerized processing based on image processing measurements on identified landmark areas of the breast together with at least one associated criterion for assessing image positioning quality to produce an automated real-time positioning quality assessment result;

- program means for communicating said positioning quality assessment result on a user interface to enable a real-

time decision whether to retake said at least one mammographic image with improved positioning while the patient is still present.

53.(NEW) The computer program product according to claim 52, wherein said at least one criterion for assessing image positioning quality includes a set of threshold values.

54.(NEW) The computer program product according to claim 52, wherein said program means for communicating said positioning quality assessment result includes program means for enabling visual indication of inadequately positioned parts of the breast on a graphical user interface.

55.(NEW) The computer program product according to claim 52, further comprising program means for user-configuration of at least one threshold for poor contra good image positioning in said processing.

56.(NEW) The computer program product according to claim 52, wherein said computer program product is implemented in an image acquisition workstation of a digital mammography system.

57.(NEW) The computer program product according to claim 56, wherein said computer program product is implemented for integrated operation with existing software in said workstation.

58.(NEW) The computer program product according to claim 52, wherein said computer program product is carried on a computer-readable medium.